'You've been frameworked': evaluating an approach to digital and information literacy at the Open University

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‘You’ve been frameworked’: evaluating an approach to digital and information literacy at the Open University

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Abstract

This article explores the effectiveness of the Open University’s (OU’s) Digital and Information Literacy (DIL) framework (Reedy and Goodfellow, 2012) in promoting the integration of digital skills into modules and qualifications – a key strategic priority for the university and in contributing to cultural change in the digital practices of teachers and learners – a key aim for the UK HE sector as a whole. We trace the history of digital and information literacy in the OU curriculum and elsewhere, leading up to the development of the framework. Four sets of interviews tell the story of academic and library staff engagement with it. These case studies are supplemented by two further interviews giving the perspective of OU middle managers responsible respectively for learning design and digital and information literacy development. We evaluate the success of the framework and suggest how it might be further developed in future. Conclusions point strongly towards the need to involve students in shaping their own skills development, as suggested in other recent research (for example, Jisc, 2011a; 2011b).

Keywords: digital literacy; information literacy; educational framework; skills development; competency; cultural change.

Introduction

An influential report from the European E-Learning Programme (Rosado and Bélisle, 2006, p.10) defines an educational framework as ‘a rational structure that organizes institutional assumptions, curriculum objectives, educational concepts, ethical values, technologies,

pedagogical goals and constraints, and professional practices, in order to implement educational policies'. The authors categorise frameworks for ICT in education as having two basic types of rationale: those that foster 'enriching everyone to cope with the new demands of an information/knowledge society...' and those that build on 'the need for change and innovation in the education system' (Rosado and Bélisle, 2006, p.26). In their view a lack of engagement with the latter results in failure to bring about 'a generalised integration of digital culture within school and university settings' (Rosado and Bélisle, 2006, p.11).

In this paper we describe the processes through which the Open University's (OU's) Digital and Information Literacy (DIL) framework (Reedy and Goodfellow, 2012) has been developed to try and meet both these aims. We explore its effectiveness in helping to promote the integration of digital skills into modules and qualifications – a strategic priority for the university, and in contributing to cultural change in the digital practices of teachers and learners – a key aim for the UK higher education (HE) sector as a whole (see Leadership Foundation, 2012-13). The framework builds on earlier information literacy strategy in the OU and elsewhere and also draws on recent research in digital literacy. We describe the formal and informal consultation processes through which the framework was brought into being, and discuss the views of academic and library staff who have been involved in integrating it into the curriculum and mediating it to faculty colleagues. We raise the question of whether the two aims of fostering skills and integrating cultural change are really compatible within a single competency framework. The unique contribution of the Framework to digital literacy development activities in the wider community is highlighted.

Background – the OU Information Literacy Framework

Information Literacy (IL) at the OU emerged as a priority in the early 2000s, as widespread access to the internet became available and OU courses began to move online. It was preceded by developments in HE, such as The Dearing Report (NCIHE, 1997), which stated that students needed to become more self-directed and that they should be supported to develop the necessary skills. IL skills were also included in the Quality Assurance Agency (QAA) framework for Higher Education Qualifications (QAA, 2001/2008).

The Open University Library's Information Literacy Unit (ILU) was established in 2002, 'to promote and support the development of information literacy within the OU community both for lifelong learning and professional development'. The ILU developed an IL strategy (2003) for the university, and promoted integration of IL at strategic level, resulting in IL statements being incorporated into OU policy documents. Strategic objectives included raising the importance of information literacy throughout the university, helping OU staff to feel confident in their own skills, and – importantly – integrating IL into the curriculum.

Over the last decade, integrating IL into OU modules has been a strategic priority for the library, supported by the inclusion of IL in QAA benchmarking statements (2007) and the OU's own undergraduate levels framework (COBE, 2005 – currently under review). However, more was needed to enable OU module teams to engage with IL in their own context. As Kirkwood (2006, p.239) puts it: '…information literacy skills are not totally generic: they must be developed in the context of a specific subject or discipline because a basic understanding of any discipline is necessary to enable learners to frame pertinent questions with which to evaluate and select appropriate sources'.

The Information Literacy Levels Framework (Open University Library Services, 2010) was created to provide a starting point for this contextualisation. It aimed to clarify what is meant by the term 'information literacy', suggest how the skills could be developed progressively through the curriculum, and provide examples of learning materials to teach the skills. It drew heavily on existing frameworks, for example, the SCONUL seven pillars of information literacy (1999, revised 2011).

The IL Levels Framework covered finding, evaluating, managing and referencing information – the 'traditional' information literacy skills needed for academic study. It provided a tool to enable OU module teams working on the ground to put high-level university strategy and faculty policy into practice. It was adopted into the OU's Learning and Teaching strategy in 2010, with subsequent widespread engagement from faculties.

Digital literacy frameworks

At the same time it was becoming evident that an approach was needed to provide opportunities for students and staff to develop their skills and practices in communicating,

collaborating and teamwork, as well as to build community and to support students in learning in a technology-rich world. HEFCE and Jisc were both promoting the development of digital skills, with one of the key recommendations from the Jisc 'Supporting Learners in a Digital Age' (SLiDA) study (2011b) being that digital capabilities of the kind mentioned above should be explicitly specified in learning and teaching strategies, contextualised for the discipline, embedded into the curriculum, and mapped across all programmes. Two main aims for an OU digital literacy strategy arose from this, one being to articulate digital literacy skills in the curriculum, and the other to promote practices and habits of digital communication amongst OU students and staff.

A review of the literature on practice across the sector showed that a number of earlier frameworks had been based, implicitly or explicitly, on distinctions between 'types' of literacy, for example: computer literacy, information literacy, and media literacy (Goodfellow, 2011). 'Digital literacy' was adopted to try and encompass all these different notions of competence within a single model of personal and institutional transformation (Martin, 2008).

Recent digital literacy projects and other initiatives have also focused on specifying the individual skills, competences and capabilities which are thought to be implied in the more general discourses of 'transforming' and 'reframing'. The Jisc 'Learning Literacies in a Digital Age' (LLiDA) project followed this trend and widened the focus of responsibility for implementing its literacy framework to include professional groups (librarians, learning technologists) and others involved in supporting curriculum development, as well as teachers and academics (Jisc, 2008-2009).

A subsequent Jisc-funded programme 'Developing Digital Literacies' (2013a) supported a number of UK HE and further education (FE) institutions in developing and implementing digital literacy frameworks of their own, but summative findings from this programme suggested that practices involved in 'digital literacy' are too complex to be reduced to a checklist of specific skills and, moreover, that the definition of the term adopted for the Jisc programmes is not specific enough to support action at the level of courses of study or specific professional services (Beetham, 2013). Hall et al.'s (2014, no pagination) review of digital literacy frameworks also highlights the problems of collapsing 'complex concepts into discrete collections of skills and practices'. For these researchers the key issue in defining a framework which can be used for self-evaluation is the need to ensure

progression across the framework in terms of 'levels of criticality' which means judgement around 'personal and social issues and risks' that arise from engagement in digital practices.

The Jisc programme findings recommend the development of digital literacy work in 'specific local contexts' (Beetham, 2013, no pagination). Given the complexities of trying to specify digital practices, and the fact that the already well-used OU IL Levels framework had a strong critical dimension, the amalgamation of digital and information literacy within the same framework appeared to be the best solution to the OU's requirements for a digital literacy strategy. However, as Rosado and Bélisle (2006) had shown, institutional ICT frameworks had not had much success in supporting the kind of cultural change that the aim of integrating new digital practices across the institution implies. This aim was therefore always going to be subordinate to the more immediate requirement to integrate digital skills into the curriculum.

Developing the framework: a collaborative digital process

The DIL framework was developed by the authors of this article, in consultation with a group of OU stakeholders representing different faculties and departments across the university with an interest in digital and information literacy. The development process involved a series of stages, including: getting support from senior management; identifying key personnel in faculties; setting up consultation exercises (group activities below); drafting the framework document and getting critical feedback; and publicising and disseminating the framework across the university.

Two group consultation exercises were held using an in-house social networking platform. Participants in these group activities looked at real-life examples of student online collaborative work where students were required to demonstrate a variety of skills, including group working, creating a joint presentation, selecting and using appropriate technologies, and evaluating the collaborative process.

In the first activity, participants together evaluated how far the outcomes specified in the existing IL levels framework could be used to assess student activities at third year undergraduate and master's level. It was clear that the IL Levels framework only covered

certain skills. Having identified gaps, the group then developed some new statements, addressing communicative and collaborative practices. The fledgling framework was used in a second activity with a different group comprising OU Associate Lecturers (tutors) who are directly involved in front-line teaching and could determine what students at first and second year undergraduate level would need.

The resulting outputs were used to expand the IL levels framework into a draft Digital and Information Literacy (DIL) framework covering all levels of taught study. New areas included creating and sharing digital content, evaluating online interactions and tools, greater emphasis on communicating, and collaborative working in a digital environment. A number of digital practices which characterise online learning in the twenty first century were also identified, for example, managing one's digital identity and participating in networks outside the study environment.

'Critical friends', including faculty academic colleagues and learning technology managers, tutors and library staff, provided feedback on the draft DIL framework. The framework was agreed to be comprehensive and useful, and its general shape was deemed to be suitable. The draft circulated had included examples of particular technologies. Following feedback, these were reduced or removed entirely, to avoid the framework dating too quickly. Some other wording was also clarified and simplified.

The final framework (Reedy and Goodfellow, 2012) was made available to OU faculties in September 2012. As there were a number of fundamental changes occurring in high-priority strategic areas at that time, such as the learning and teaching plan and the employability strategy, it did not get the top-level championing that the previous IL strategy had received. However, the new focus on qualifications at the OU had opened up an opportunity to engage with faculties on skills development at programme level. OU curriculum development strategy was also moving to a learning design approach, in which the importance of digital and information literacy was clearly recognised (OU Learning Design blog, 2013). It was decided to promote the framework directly with faculties. Like its predecessor, the DIL framework provided a starting point and a shared language when discussing how these skills should be integrated into the curriculum.

An official launch of the framework took place in February 2013 at an annual staff development event focusing on use of technologies for learning. By the end of 2013 the

DIL framework had been endorsed by all faculties and was being used by both academic and Library staff to audit the digital skills content of OU modules and qualifications. The framework had also been included in the set of OU Learning Design resources and tools made available to qualification and module teams in the form of DIL facilitation cards (Jisc, 2013b) for use at workshops and meetings.

The framework was created at a time when there was much talk about digital literacy both at the OU and in the wider HE community, but less clarity about what the term meant or what institutions should be doing about it. The framework's unique contribution lies in its articulation of digital skills and practices to the OU community in a way that had not previously been done. The fact that the OU framework has been used as part of the Jisc 'Changing the learning landscape' programme (Jisc, 2013c) suggests that this work has wider value.

Evaluating the framework

Take-up of the framework in the development of teaching materials by academic staff has proceeded slowly, partly due to the number of other new curriculum and teaching-related procedures competing for their attention. However, the OU teaching librarians have had some success in introducing it into their interactions with a number of module teams in different faculties. This has allowed us to conduct a small-scale evaluation to gather some initial evidence of the way in which the framework can be used to shape the integration of digital skills into the curriculum and influence digital practices amongst the module teams themselves. We set out to create a small number of case studies based on interviews with academic colleagues and librarians who had engaged with the framework as part of their module-development practice .These case studies could then be used to assess the relevance and usability of the framework and to help Library staff develop further approaches to disseminating it.

Semi-structured interviews were carried out with four academic colleagues and four librarians working respectively on a postgraduate Science foundation module, a third-level Classics module, a second-level interdisciplinary English module and a range of Health and Social Care undergraduate qualifications, in particular Social Work. Two further interviews were then carried out with colleagues with responsibility for leading strategy in

learning design and digital and information literacy. All of the interviews were conducted face-to-face except one which was done by telephone, and all lasted approximately 40 minutes. Written notes were taken by the interviewer and these were subsequently expanded into a short case study.

Interviewees were asked:

1. How is the DIL framework being used in practice for your module or qualification?
2. How far does the DIL framework meet your needs?
3. What more is needed?

Findings

The common themes identified from the responses to each question are set out below:

1. How is the DIL framework being used for your module or qualification?

The main ways in which the framework has been used are:

- To determine what skills should be developed.
- As a conversation starter and thinking tool.
- To facilitate collaboration between faculty and library staff.
- To support more diverse information-finding practices.

In all cases the Framework has been used by module team or library staff for auditing purposes when developing level-appropriate skills content and identifying gaps. For example, with the cross-disciplinary Education module, the auditing process revealed a gap around referencing and plagiarism, which resulted in an activity being added to the module, later expanded in light of student feedback.

In the case of the postgraduate Science module, students are directed to use the framework as part of a broader skills self-audit. Since the framework was not particularly designed for student use, this is worthy of note. Health and Social Care students reflect on skills indicated by the framework at level one via questions in formative computer marked assessments.

The academic from the second level education module regarded the framework as a very useful 'rhetorical tool' for developing conversations around DIL strategy and activities. For Classical Studies, the DIL framework was used to prompt discussion amongst the module team about what students could be expected to already know and be able to do, and how much support they would need. This view was supported by the Library Services Manager (Digital and Information Literacy), who stated that the original impetus for the DIL framework was to connect theory and policy to real life – to 'make it happen' at the OU.

Skills integration is a collaborative process between academic and library staff. The postgraduate Science and second-level Education modules are particularly successful examples of this. For Science students, a particular benefit of the framework is to encourage them to engage with more sophisticated approaches to searching, for example, using social media in research. Assessment tasks include finding papers on a topic, selecting a specific paper and writing a blog-style comment on it. Students are required to keep research diaries and some use internet applications or other dedicated software for this purpose. The module team for Education started from particular online resources, using the 'Find' category of the DIL framework at level 2 to identify and develop student activities.

2. How far does the framework meet your needs?

The stages of the framework are seen as fitting well with the curriculum in some areas, but less so in others. For Science, framework statements make progression clear and help students to see the competence requirements at different levels. The librarian involved has used the framework to carry out detailed mapping for all Science qualifications from level 1 to Masters, suggesting the core skills to be focused on at each stage and tailoring the framework to each module. This has saved considerable time for curriculum teams. The picture is similar for Social Work, where students have to do modules in sequence and can build on what has gone before. Skills activities were already integrated into the programme and the framework is being used to update these. In contrast, the framework has enabled third level Education modules to build on the DIL elements of the second-level module in a way that may not have happened otherwise.

At present, study pathways to a Classical Studies degree are many and complex, and it is not possible to map routes to progression across the DIL framework. In the future, when the qualification pathways are better established, the picture may be different. As it is,

many students at third level have little background in even the basic IL skills; and at master's level – in contrast to Science – the DIL framework competences are regarded as too complex.

3. What more is needed?

The main findings can be grouped as follows:

- Agreement about what is meant by digital literacy.
- Buy-in from academic colleagues.
- Contextualisation.
- Help to translate the terminology into student-friendly language.
- Support for transferability of skills.
- Appropriate learning design.

All four sets of interviews showed that there are different concepts of DIL (with some conflating it with instructional ICT training). The engagement and enthusiasm of the module team chair was identified as a key factor by all library staff interviewed. In the view of the Learning and Teaching Development Manager, librarian-faculty relations are still a key factor in getting the message across. It was suggested that staff development in online pedagogy is needed for both academic and library staff.

In the case of Education, DIL activities (such as blogging) are often seen as irrelevant to subject content. It is also sometimes wrongly assumed that everybody, including students, is now completely used to using the digital tools required for study (a view challenged by Farrell, 2013). DIL is here perceived as an unwanted curriculum in itself and the framework as prescriptive. The author of the Science postgraduate module has contextualised and personalised the framework by comparing the information landscape of 1993 with the current day, drawing on the module author's own experience.

All the librarians interviewed believed that discipline-specific examples are the key to helping module team colleagues translate the framework into practice. It was highlighted by the majority of interviewees that the language of the framework is very academic; they are not always sure what all the statements mean. Consequently, people find it difficult to interpret. Academics involved with the Social Work degree would like the terms used in the framework to become common parlance. This needs to be informed by the student voice.

Within the field of Classical Studies, there is a strong focus on the more traditional 'information literacy' skills related to academic practice (for example, using journal databases, referencing, citing, etc.). Although it is accepted that many of these skills now involve digital technologies, neither these nor the cutting edge digital humanities practices of many classical scholars, including the module team chair herself, are here equated with 'digital literacy'. Students of this module are supported to use context-specific digital tools (for example, an interactive map and online database), but not to explore transferability of these skills to other situations.

Learning design was identified as a key factor for successful skills integration, especially by library staff. This includes articulation of skills in learning outcomes and alignment of assessment strategy to skills content. This view was reinforced by the Learning & Teaching Development Manager with responsibility for OU learning design implementation. New OU policy from 2014 requires librarians to be invited to learning design workshops at the start of the module development process. This is an opportunity for the librarian to feed DIL into discussions about the overarching structure and learning outcomes of the module.

Discussion

Several participants, both academic and library staff, highlighted the role of the framework in prompting discussion and supporting efforts to mediate skills work to the module teams: 'a very useful rhetorical tool' (2nd level English). Mediation of the framework is important. There is variation in the extent to which librarians use the framework to get DIL integrated into learning outcomes and activities. Factors influencing this include Faculty-Library relations and the backing of the module team chair. Senior management backing in faculties is needed to ensure DIL is given serious consideration at programme/qualification level.

The process of mapping the framework to module learning outcomes has been found useful at the start of the module design process and to review what is in a module or qualification. Some early adopters have embedded the framework more fully and are using it to engage students directly with self-reflection on skills.

Stages of DIL development do not always map to levels of study (for example, the fit is better for Science than for Classical Studies) and students may be at different stages in their development. This supports the view that the relation between 'level' of digital competence and level of module is probably dependent on subject matter.

Module teams do not always see the value of DIL skills development activities. This is due to varying interpretations of what digital literacy is or the belief that students can already do everything necessary. It appears that the DIL framework may be partly having the effect of constructing digital literacy as if it were a curriculum in its own right (a 'tick list'), rather than a technological perspective on disciplinary practice.

Our findings suggest that 'traditional' information literacy skills are still more widely integrated. This is because people are more familiar with them: information literacy is well-established at the OU and learning materials are available to teach the skills. The newer concepts are less well-understood and the language of the framework is not always easy to interpret.

Students should be encouraged to articulate their engagement and outcomes. A 'plain English' version of the framework – informed by students themselves – will help programme and module teams to implement digital and IL development on the ground. Contextualised resources could support the embedding of specific skills.

OU-wide systems are now recording DIL skills implementation as part of learning design. From a student point of view, a joined-up approach with other skills (for example, employability and academic skills) would make sense, however, existing OU frameworks do not fulfil this role. In order to be effective, the framework needs to be given serious consideration at programme/qualification level and relate to other frameworks in use at the OU. A statement of 'graduateness' is needed.

The need has been highlighted for more staff development (for academic staff and librarians) in online pedagogies and opportunities to share good practice. This could stimulate module team authors to use digital technologies and literacies more creatively in their teaching and avoid the compartmentalising of subject content and skills as separate components of teaching and learning.

Summary and conclusions

This article has addressed the question of how far the OU's Digital and Information Literacy (DIL) framework has enabled the OU to realise in practice the aspirations set out in its Learning and Teaching strategy and policy. The DIL framework, like the Information Literacy (IL) framework before it, aimed to articulate the OU's conception of digital and information literacy to those involved in OU curriculum development. It did not set out to be a curriculum in its own right. However, feedback from those interviewed suggests that it may be viewed as an end in itself.

Ironically, the success of the IL framework – in widespread use since 2010 – may be standing in the way of take-up of the DIL framework. It could be argued that the more restricted focus of the IL framework on skills required for academic study, makes it easier to implement in a university context. It is also worth reflecting on the history of IL integration into the OU curriculum and the amount of time (up to a decade) needed to bring about change when delivering learning on a large scale.

Where the DIL framework is gaining currency, it appears that a mediated approach, contextualised to discipline, is yielding the best results. However, the bigger question remains about the relationship of the framework with other institutional frameworks (for example, the OU's undergraduate levels framework), and how different frameworks can be brought together in a coherent way for the benefit of students.

What is the future of the framework? Are frameworks of this kind even effective in shaping the realisation of educational policy and teaching practices (Rosado and Bélisle, 2006), especially for such a contested concept as digital literacy? Many discussions of digital literacy founder at the point of trying to define what is meant by the term. It is clear that digital literacy is often understood very differently by researchers, teachers, learning developers and librarians, even within the same institution – let alone students. Whilst the framework has enjoyed some success as a means of facilitating curriculum development, its role in promoting broader cultural change around digital practices has not yet been proved. New ways of working and teaching are currently being championed at OU strategic level. In order for these to become established, they also need to be modelled in practice for others to learn from.

An important development in HE is the involvement of students as partners in their own learning and development (for example, HEA (2014) Students as Partners and Jisc (2013d) Digital Student projects). For the OU, this seems to be the key to refining the framework so that it more clearly meets student needs and expectations. For example, the language used to talk about digital literacy may need to change. We already know from student consultations that the term 'digital literacy' has connotations of deficiency, as found by Hall et al. (2014) in a school context. A better term might be 'digital fluency' or 'digital confidence'. It is also a case of empowering students to own the skills and practices they have developed, and to articulate them in a way that makes sense not just to themselves and their tutors, but also to employers.

Work has begun on a student-friendly version of the framework. OU students will be involved in its development. Whether it continues to look like a framework is not known at this stage, but the aspiration for our students to be equipped for the digital world in which they live and work remains unchanged. By bringing students' own practices to the centre, students may act as 'game-changers' (Ford and Bowden, 2013, p.9) and 'change agents' (Jisc, 2014) and enable the university to address both the skills development and cultural change agendas.

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